

Training

The single most important element in a department's preparation for an emergency is the quality of training received by its employees. Without the knowledge and experience necessary to utilize the equipment provided and to properly assess the situation, the welfare of the community and the firefighters would be at risk.

The fire service has evolved over the years into a different service than the one that existed twenty years ago. Not only have the apparatus and techniques changed, but so has the personnel and the role of the fire service. With the advent of formalized education programs, the status of the firefighter has been elevated from that of a mere doer to that of a professional. Increased demands have expanded the role of the fire service into areas beyond fire protection. Training must now include fire suppression, emergency medical techniques, hazardous materials containment, and incident command skills.

Training is provided to the Fire Services Division personnel through a variety of avenues. During probation, newly hired PSOs receive training in the Fire Academy. Additional training throughout their careers is gained from classes and drills provided on the National, State, Regional, and local levels.

At the National level, the National Fire Academy offers a wide range of training programs in fire service technology, fire incident management, fire prevention and risk management, and fire service organizational management. All are designed to improve the employee's ability to protect the community from the threat of fire.

The California State Fire Marshal's Office is responsible for implementing a standardized training program throughout the state. They provide training courses at the local level and/or at a central campus similar to those being offered at the national level. Some programs emphasize skills training, while others cover such advanced subjects as staff and command;

instructor training, management techniques, and special response units.

At the fire academy a newly hired PSO will acquire the necessary knowledge and skills to safely perform the duties of a firefighter. Up until the Fall of 1993, the department operated its own basic fire academy at fire station #2. In 1993, recruits began attending the Regional Joint Fire Academy along with recruits from other participating agencies in Santa Clara County. The academy is hosted by the participating agencies on a rotational basis. Officers successfully completing the academy receive a Basic Firefighter certification through the State Fire Marshal's Office.

Fire Services personnel participate in several multi-agency drills. The drills provide the Division personnel the opportunity to work with other agencies, sharing knowledge and expertise. Coordinated through the Santa Clara County Fire Training Officers Association, the drills are conducted on a yearly basis throughout the county and include Wildland, High-Rise, Multiple Casualty, and Hazardous Materials simulations. Depending upon the magnitude of the drill, fire department personnel and equipment from as many as three counties may participate. The training provides the opportunity to evaluate the mutual aid system, emergency communication systems of those involved, Incident Command System, and operational procedures, as well as the overall effectiveness of fire service personnel.

In Sunnyvale, training continues to be a key element contributing to the success of Public Safety. The training unit is responsible for all aspects of training including implementation of in-house training, coordination of training through outside agencies, recordkeeping, and ensuring all new and existing training requirements are met.

To be effective, training must remain current. Personnel assigned to the training unit must maintain an awareness of issues on the horizon that may have an influence upon the training function. This is accomplished by assuming an active

role in several organizations external to the department such as the California Fire Training Officers Association (CFTA), the Santa Clara County Training Officers Association, the Northern California Training Officers Association, and the National Fire Protection Association.

Training records must be complete, accurate, clear, and readily available. Basically two types of records are maintained; formalized training and in-service training. The records are maintained and updated by the training coordinator. Periodically, the information is reviewed to determine which areas need more emphasis or additional training.

In general, each fire services officer receives an average of two to three hours of in-service training each work day in specific subjects related to fire duties. This training is at the company level and includes classroom and hands-on skills training. Additionally, on a monthly basis each fire company participates in a drill usually conducted at a central training site (training tower) and based on a team operational concept. The training includes both classroom and practical exercises on topics such as first aid and CPR, hose lays, pumping operations, ventilation and overhaul, fire prevention, vehicle extrication, heavy rescue, and hazardous materials incidents. This constant performance and evaluation allows for the continued delivery of high level services currently provided to the citizens.

Above and beyond everyday training requirements, there are a few areas deemed necessary for formal certification and periodic reexamination for proficiency. The fire training coordinator is responsible for scheduling annual training assuring each officer maintains his or her certification. This mandatory training includes:

- Cardio-Pulmonary Resuscitation (CPR - State mandated);
- Automated Defibrillator Operation;
- First Aid (state mandated);
- Apparatus and Truck certification;
- Annual Firearms Demonstration of Proficiency;
- Annual Police Updates and Cross Training; and
- HazMat Specialist/Technician certification.

Training requirements are continuously changing and adjustments to the training schedule must be made to meet each new requirement. Two areas that have experienced change recently are Hazardous Materials Containment and Emergency Medical Services.

As a result of the concerns surrounding the hazardous materials response capabilities of local jurisdictions, the State Fire Marshal's Office mandated eight hours of specialized training for all fire services first responders. The mandated classes included hazardous materials awareness and operations at hazardous materials incidents. This training was provided to every member of the department during a two year period. The class has been incorporated into the basic fire academy.

Due to the increase number of medical emergency calls, the department elevated the level of service to include the use of firefighter automatic defibrillators. This increase in service level required an additional eight hours of training for all fire based personnel. Proficiency checks continued on a monthly basis for a six month period. In the future as officers rotate between divisions, additional training hours will be required to maintain proficiency and meet certification standards with the defibrillator units.

Future Issues

Advances in technology during the past twenty years may very well be exceeded by those occurring between now and the year 2005. Although the department, and ultimately the citizens, will benefit from this increased technology, the Division will be burdened by it as well. The burden will be in the area of increased training demands for special and technical training.

There is an intense movement among fire service organizations across the nation to begin providing advanced life support (ALS) and pre-hospital care to their citizens. Santa

Clara County is no exception as several agencies are aggressively evaluating the potential need to provide this service in their communities. As this service begins to be provided by other fire departments, Sunnyvale will need to assess the community's need for this increased level of service. Future legislation and or regulations by either the state and or county Emergency Medical Directors will impact the training hours currently devoted to first aid training. Future mandates may increase the minimum service levels above that of basic first aid which is currently provided. This would substantially impact the number of hours allocated to EMS training.

Regulatory agencies such as the State Fire Marshal's Office and Peace Officers Standards and Training have, in recent years, placed increasing training mandates upon agencies. These mandates ultimately result in increased training requirements. P.O.S.T. increased the mandatory training necessary to maintain Peace Officer certification from twenty hours every four years to twenty four hours every two years. The State Fire Marshal mandated completion of specific courses for arson investigators to be recognized as "experts." These same agencies are recommending structured training for civilian personnel that undoubtedly will be mandated in the future.

Recent legislation mandating courses for hazardous materials specialists training has caused an increase in the training hours required for certification. Civilian hazardous materials inspectors are also receiving specialist level training, which allows them to work closely with emergency response personnel.

Finally, there is a finite number of work hours in a day, and the hours that can be devoted to training during the year are likewise limited. As more mandated training is imposed by regulatory bodies, the time available for discretionary training needed to maintain proficiency for the day-to-day operations is drastically reduced. Depending upon the magnitude of this reduction in available hours, it is conceivable that a review of the effectiveness of the Public Safety Concept as is currently

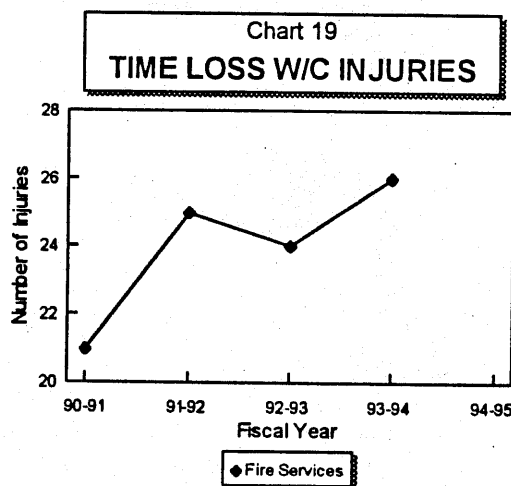
practiced might be necessary. The trend seen in this area is unlikely to bring into question the Public Safety Concept as a general approach, but it may require consideration of changes in philosophy or policy. For example, changes such as designating some special assignments as permanent, or the permanent assignment of station-based fire personnel might at some point provide a more efficient use of resources. These and other similar approaches not only would allow for the reduction in training requirements, but would also result in reduced flexibility.

Safety Standards

The fire service has the highest rate of occupational injury and death in the United States according to a recently published article. Most injuries to firefighters occur in and around the fire station. Any steps a fire department takes to reduce the risk of accidents and injuries in the work place can ultimately reduce the costs associated with those injuries. In addition to training in the proper use of safety equipment and procedures, emphasis must be placed on maintaining the well-being of personnel through health and fitness programs as well as through knowledge and practice of safety standards.

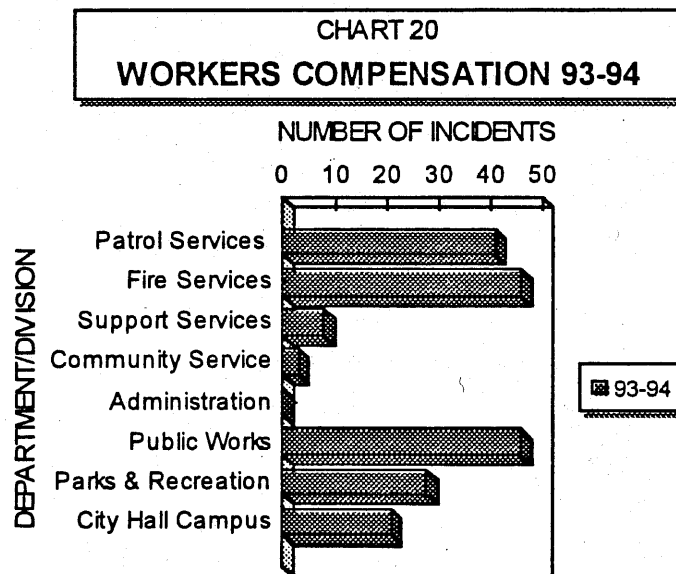
Current death and pension statistics strongly indicate that improving firefighters' physical fitness can achieve significant savings. The cost of injuries to firefighters involves more than just medical costs. Although injured employees' wages are compensated through workers' compensation and other programs, the cost of lost time and the training of replacements for those forced to retire must be absorbed by the City.

A health and safety conscious work force is more productive and experiences a lower rate and severity of injuries. The reduction of injuries results in reduced worker compensation settlements and expenses in medical care. Pressure to settle is a significant factor to avoid the costs of litigation. There is an increasing incidence of more complicated back injuries and cumulative trauma injuries such as those associated with repetitive work and psychological stress. The original intent that workers'



compensation claims would be limited to actual on-the-job injuries has been altered by judicial interpretations that have greatly increased litigation.

Sunnyvale Human Resource Department's Risk and Insurance Unit is responsible for maintaining and tracking workers' compensation injuries for all departments within the City. The most recent workers' compensation statistics available begin with fiscal year 1990-91. On a city wide basis since that time, a total of 791 employees' reported workers' compensation injuries of which 445 (56.3 percent) were employees of the Public Safety Department, 206 (46 percent) resulting in the employee missing work. The Fire Services Division reported a total of 96 injuries requiring time off work from FY 90/91 - FY 93/94.



On a city-wide basis during fiscal year 1993-94 there was a total of 193 workers' compensation injuries occurring in the City, 93 of which resulted in 20,450 lost work hours. Public Safety employees accounted for 52 (55.9 percent) of those injuries necessitating time

off work which totaled 12,547 work hours lost.

Due to the high number of workers' compensation injuries occurring within Public Safety in general and the Fire Services Division specifically, some type of physical fitness program may help reduce the overall number of these types of injuries. Prior to a physical fitness program being implemented, however, a staff analysis would be necessary to determine

what affect, if any, such a program would have on the overall effectiveness of the Division and Department. Similar programs have proven successful in other departments.

In addition to fitness and health, the division is committed to practicing all safety measures in the execution of their duties. Safety standards are determined by the National Fire Protection Association (NFPA), a nationally recognized fire-safety standards development organization. In 1987, the first standard directed at firefighter safety, the "Standard on Fire Department Occupational Safety and Health Program, 1987 Edition" (NFPA 1500) was adopted. When NFPA 1500 was due for its five-year revision, a minimum crew size amendment was proposed by the firefighters' union. The proposed amendment required that at least four firefighters be at the scene of a fire before a fire department employee can enter the building to extinguish the fire. This amendment has not been adopted at this time.

There is no consensus amongst cities, chiefs, or firefighters on this issue. Decisions on staffing levels has been left to city and department management to this point. While the NFPA standard by itself is not automatically binding on a city, cities can expect to confront such a "nationally adopted standard" in litigation, bargaining, and workers compensation hearings should it be adopted in the future.

In response to this issue, the International Association of Fire Chiefs has issued a policy statement supporting local determination of staffing levels based on local conditions, in lieu of the establishment of a single national minimum standard. The Chiefs recognize the importance of maintaining the flexibility to determine the number and size of fire and EMS crews within their communities. The level of life safety and fire protection in any community is a function of several interrelated factors; staffing levels of apparatus is only one of those factors.

Establishing any minimum standards without examining the other elements would not be in the best interest of the public or the fire and emergency service.



The Sunnyvale City Council has strongly supported local determination of staffing levels and stated its intention to vigorously oppose the inclusion of any required staffing levels in a national standard.

Following years of heated debate about staffing levels and how they relate to firefighter safety, something definitive may be on the way. The U.S. Fire Administration (USFA) has authorized a two-year study to determine if fire department staffing levels at emergency incidents uphold firefighter safety and health. The study was authorized under the Federal Fire Protection and Control Act, Public Law 93-498.¹ The objective of NFPA's fire department staffing study will be to develop recommendations to assist public officials at the city, county, and state level in determining the appropriate number of trained emergency response personnel necessary for safe and efficient operations at emergency incidents.

The Fire Services Division will continue to monitor the Sub-committee's progress in determining the minimum staffing levels for fire apparatus. Through various forums, the Division will express their concerns about maintaining the flexibility to determine staffing levels based on individual community needs and service levels. Depending on the Sub-committee's final results, and the action taken by the NFPA, Public Safety Fire Services Division fire apparatus staffing may become an immediate issue requiring further study of the Public Safety Concept as currently practiced in Sunnyvale.

Future Issues

Currently, the California Code of Regulations, Title 8, Article 108, Section 5156 *et al* establishes procedures necessary to protect the health and safety of employees entering confined spaces.

¹ Sylindria Bynoe, USFA orders private study of firefighter staffing levels, effects on safety, *International Association of Fire Chiefs On Scene*, February 15, 1994.

There appears to be some confusion between the California Occupational Safety and Health Administration (Cal OSHA) and the California State Fire Marshal's (SFM) Training Bureau as to whether emergency fire personnel are included in the confined space regulations. The SFM's Training Bureau is moving forward, developing a confined space curriculum for firefighters. It is anticipated that the course be completed and available during the early part of 1995. At this time it is not certain whether the class will be mandatory for all firefighters.

New Technology

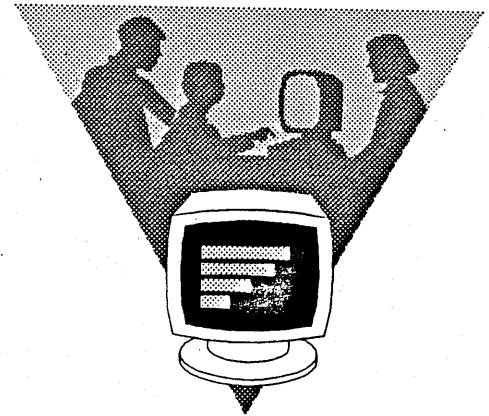
Change brought about by technological and other developments is commonplace in today's society, and its impact on the work environment is increasing. Technology spurs change. Perhaps the most significant technological changes affecting the fire service have been in the development of residential safety equipment and in the expansion of computer capabilities.

The development of smoke detector and residential sprinkler technology is having a major effect on fire loss. These technological innovations have produced a greater public awareness of the dangers of fire and have provided early detection and suppression capabilities. Their rapid acceptance led many communities, including Sunnyvale, to amend fire codes to require automatic sprinklers for new residences. As a result, the incidence and severity of fires has been reduced.

The expansion of computer capabilities has also influenced the way cities conduct business. Computer technology continues to be one of the fastest growing and changing aspects of the business world. Advances in computer technology in recent years have made the application of computer systems in the workplace economical to purchase, as well as, easy to install, use, and update.

One negative side-effect of the rapid acceptance of computers within the City of Sunnyvale is the isolation of desktop computer systems. While desktop computing provides fast, short-term solutions for departments struggling to increase services using fewer resources, it does not provide for long term solutions. As a result, these "islands of technology" limit the City's ability to share information across organizational boundaries and to access data residing on other systems. These limitations significantly hamper productivity and the City's ability to provide services to its customers, as well as, encouraging duplication of effort across departments.

As the trend continues to move away from a City-wide central host (mainframe) computing facility to departmental, decentralized computing, there is a need to change the way information resources are managed and supported. In this changing environment, it is critical to build a technology infrastructure that establishes bridges between data "islands" and supports the City's goals, mission, and strategic business plan. Sunnyvale's Rational Information Systems Environment (SUNRISE) is a vision of a comprehensive technology plan designed to protect the City's existing investment in information resources and to substantially increase information support services to both the City's internal and external customers. This plan will allow the City to expand and capitalize on its communications capabilities in the future. Another benefit includes maintaining departmental autonomy while providing global structure.



In 1989, the Department of Public Safety embarked on a systematic approach to solving many of the information management problems plaguing the then current computer system known as the Comprehensive Public Safety System (CPSS). An aggressive search for a replacement Computer Aided Dispatch (CAD) and Records Management System (RMS) began. After extensive research, testing, and evaluation of those systems that were available for public safety environments, a three phase implementation approach was recommended; CAD, RMS, and Fire Management Information System (FMIS).

The Fire Management Information System is a set of computer programs and procedures designed to assist the Fire Services Division in managing information. FMIS will allow the Division to collect, process, and store information more efficiently and to make better use of that information in meeting operational and planning needs.

As with the overall City philosophy of networking, the system will be capable of interfacing with other City departments' computers, as well as, with the computer system of other city, county, state, and federal agencies. Currently, the Division's

computers interface with other agencies only for the purpose of reporting fire and hazardous material incidents.

A major portion of the FMIS is the Fire Incident Module. This module is set up to gather all the data necessary to meet State Reporting requirements. Over the years, this data has helped the California fire service to develop and support numerous pieces of fire safety legislation and target subjects for much needed public education programs. With the addition of the FMIS, the Fire Services Division will be able to track data including response times, number and types of emergency calls, and hazardous material incidents specific to the City of Sunnyvale. The ability to analyze data pertaining to the activity of Sunnyvale Fire Services Division will help to identify trends in the needs of the community and will allow managers to plan for allocation of resources in the future.

Future Issues

Technology also affects the overall effectiveness of firefighters during emergency operations. Many new advances on the horizon may have tremendous impacts on the fire services.

As every firefighter knows, the single greatest obstacle to fighting a fire is simply the ability to see. In most instances, the firefighters cannot even see their hands in front of their faces. This lack of visibility impedes firefighting and rescue efforts. Over the years an infrared imaging system was developed allowing firefighters to see in fire conditions, but it was bulky and required firefighters to hold it in their hands. Recently a similar system was developed which is smaller and attaches to the helmets of the firefighters,¹ freeing their hands to advance hose lines or to effect a rescue.

¹ Cairns & Brother, Introducing the CairnsIRIS – the technology of the future has arrived, *Fire Engineering*, August 1994, pg 3.

Another example of how rapidly technology changes, a "solo helmet" was developed and is currently being used by firefighters in other areas. This new helmet was recently revealed and demonstrated on a popular television program, *Beyond 2000*.² The helmet's design is one that completely encloses the firefighters head to the shoulders and is large enough to provide for a SCBA face mask to be worn. The helmet also has built-in radio communications equipment, as well as, a built-in thermo imaging camera. The thermo imaging camera projects an image onto a mirror within the helmet which effectively allows firefighters to see in complete darkness including heavy smoke.

Technology is constantly changing. Who knows what the future will bring to fire services to save lives and reduce fire loss? The Fire Services Division managers will continue to encourage it's members, both sworn and civilian to be innovative in their approaches to problem solving, including procedures, techniques, equipment, and customer service; regardless of where these technological and innovative advancements take the Division in the 21st century.

² *Beyond 2000* is a program committed to technology of the future. The program featuring this new helmet aired November 29, 1994 at 10:00 pm.

Demand Management

At the December 1992, Legislative and Budget Issues Workshop, City Council directed staff to prepare a study exploring the use of market concepts for the provision of municipal services. As a result of that study, demand management is now an overlay required by Council policy to be considered within all General Plan updates. As opposed to the traditional approach to service delivery, providing "more" as public consumption increases (supply management), demand management recognizes that there can be too much demand for a service or resource. A market-based approach to government emphasizes providing incentives to consumers that encourage the reduction of demand, but not through tax expenditures. Given today's realities and constraints, approaching service provision from this perspective is essential.

In many respects, the mission of the fire service, by its very nature, has a demand reduction orientation. The prevention of fires and hazardous materials incidents reduces the need (demand) for emergency response. The regulation of building design and construction materials plus the requirements for built-in protection systems reduces the number of resources required to respond if the fire or hazardous materials incident is not fully prevented. The frequency and potential severity of fires or hazardous materials incidents are key considerations in determining appropriate staffing levels for the community.

Market-based pricing has been a consideration for the hazardous materials inspection program from its inception. The program has been and continues to be 100% fee supported. In contrast, the fire prevention inspection program receives only 16% of its funding directly from fees. Future fee settings or adjustments for this program should be examined in light of market-based pricing.

Ordinances, regulations, mandates and fees are examples of the "Command and Control" dimension of demand

management. Less practiced has been the "Incentive" approach to reducing demand.

The present false alarm reduction program emphasizes the "carrot" rather than the "stick" approach to eliminating needless emergency responses. Inspectors work cooperatively with companies experiencing false alarm problems to find solutions. Voluntary compliance has resulted in a greater than 25% reduction in false alarms since the program's inception in 1993.

The "stick" approach has also found success in reducing false alarms in other communities. Nuisance alarms result in monetary sanctions for business. These sanctions could be specific fines for repeated alarms and/or recovery of emergency response costs through civil court. The average cost of fire response to a false alarm is presently \$850. Additionally, false alarms unnecessarily commit fire apparatus and personnel, drawing away from their availability for response to actual emergencies.

Unlike security alarm systems, merely turning off the alarm is not a solution for the business owner. Fire alarms are required components of fire protection systems. Sanctions may afford the opportunity for further reductions in false alarms and should be studied as a possible option.

Other opportunities for reducing responses (demand) are under consideration. In the present emergency medical response system the practice is that a fire apparatus responds to every request for an ambulance. Likewise an advanced life support ambulance (ALS), the highest level of response, is sent by the County provider. In many cases (such as sick calls, simple fractures or minor injuries) this is an over commitment of inappropriate resources. The ability of the dispatcher receiving the call to prioritize response based upon medical necessity has the potential to eliminate the need for fire services response in many cases. Basic life support ambulances (BLS) are frequently a more appropriate response allowing better utilization of ALS ambulances. As a participant in the Countywide EMS Redesign committee, the Fire Services Division will be advocating call prioritization and tiered

response as more rational approach to emergency medical incidents.

Several goals and policies in the Sub-Element were rewritten to reflect and emphasize demand management considerations in the decision-making process. Action statements were added to formalize this approach to service provision, creation or expansion.

RELATIONSHIPS WITH OUTSIDE AGENCIES

In order to provide services to the community in an effective manner, the Fire Services Division interacts with various agencies outside of the City of Sunnyvale. The other agencies are on the national, state, and local levels. The national and state agencies often act as regulatory bodies, while at the local level, interactions are in the spirit of cooperation and mutual gain.

Numerous State and Federal agencies require notification and/or compliance with their regulatory statutes and standards regarding hazardous materials incidents. Representatives of these agencies often work with city staff and emergency responders.

The Office of the State Fire Marshal is one of the agencies with whom the Division is in almost constant contact. It is a governmental department administered by the State Fire Marshal who is appointed by the Governor. The Office of the State Fire Marshal acts as a regulatory agency, maintains a fire research laboratory, has arson and bomb investigation units, collects fire data from all fire departments in the state, and manages the California Fire Service Training and Education System. The Office of the State Fire Marshal is working to standardize the training of firefighters and the information systems of various departments to make data comparable.

On the local level, decisions and agreements are often made through the Santa Clara County Fire Chiefs' Association. The Association is a chartered professional organization comprised of the member chiefs of the municipal fire departments and fire districts in Santa Clara County. Monthly meetings are held for the purpose of exchanging information on local fire concerns and unifying positions on legislative and training issues. The Association also provides an arena for discussing the local impact of statewide issues, coordinating joint training efforts, and gaining support from other departments for emergency response aid.

It is in the best interest of the community for relationships with other agencies, on all levels of government, to be strong and positive. Through cooperation and communication, disputes and uncertainty over authority which are not uncommon during times of disasters can be avoided or at least minimized. Continued discussion will lend clarity to boundaries of power among various public agencies and levels of government in the unusual circumstances surrounding a disaster. Waiting for a disaster to occur before resolving these and similar role conflicts can make disaster control, which is never easy, impossible. The consequences can include improper resource utilization, fractured policy decisions, a tug of war for control at the scene, and negative publicity when the critique begins. Therefore, sorting out these and similar questions ahead of time is the only responsible course of action.

In addition to working with governmental agencies, the Division also interacts with the Insurance Service Office (ISO). As the methods for determining fire insurance protection rates in the city are complex and are subject to close regulation by the State Insurance Commission, individual insurance companies are generally affiliated as members of an insurance service organization often referred to as a rating bureau. The bureau's services include assistance in the setting of insurance rates and in complying with the insurance laws of the state.

The ISO currently acts as the rating organization for California and the 44 other states not having independent fire insurance rating organizations. In the past, Sunnyvale has received favorable assessments, Class 3 on a scale of 10 (1 being the highest rating given).

Prior to 1988 the insurance industry relied upon the ISO classification of municipalities fire protection capabilities when establishing insurance premiums. However, with the passage of Proposition 103 the insurance industry's reliance on ISO classifications and its impact on insurance rates was greatly reduced. Based on available data pertaining to insurance rates and how they are calculated, it is not likely that an

improvement in Sunnyvale's ISO classification would significantly impact insurance premiums throughout the city.

GOALS AND POLICIES OF THE FIRE SERVICES SUB-ELEMENT

Introduction

This section of the Sub-element defines the goals, policies, and action statements that govern the City's provision of fire services to the community. The goals and policies give guidance for decisions and direction for efforts necessary for comprehensive and effective protective services. The action statements reflect specific ways to achieve the desired results.

The Fire Services Sub-element is one of several sub-elements of the City's General Plan that comprise the full range of protective services provided by the Department of Public Safety. Effective provision of these services requires strong interrelations between the various sub-elements.

The goals, policies, and action statements within the Fire Services Sub-element are based on certain assumptions. They include:

1. The citizens of Sunnyvale desire a community that is safe from fire and other hazards that have a negative effect on their lives and environment.
2. The potential for serious building fires and other hazardous events is ever present in every community. Sunnyvale is no exception.
3. A highly trained and well-equipped fire suppression force is necessary in order to provide 24 hour response to a variety of emergency and urgent requests for service.
4. Effective delivery of fire services is significantly dependent upon a number of programs and Departments within the City.

5. Fire services response to emergency medical calls is a critical element in an effective regional EMS system.
6. Fire service responsibilities will continue to include provision for the inspection and control of hazardous materials.
7. A rapid response and effective actions by fire services personnel directly affects the extent of injuries, patient survivability, and property damage resulting from an emergency incident.
8. The number and severity of fires and other hazardous events can be positively influenced by appropriate codes and ordinances, inspection and enforcement efforts, and a continuous program of public education.
9. Effective command and management is enhanced through a reliable system of communications, data processing, internal policies and procedures, participation, and cooperation with other agencies and organizations.

GOAL 4.2A: PROVIDE A FIRE SERVICE RESPONSE SYSTEM THAT WILL CONTROL THE SPREAD OF FIRE IN BUILDINGS AND OTHER PROPERTIES AND MAINTAIN MINIMAL CASUALTIES AND PROPERTY LOSS FROM FIRE AND OTHER RELATED EMERGENCIES.

Policy 4.2A.1 **Assure that equipment and facilities are provided and maintained to meet reasonable standards of safety, dependability, and compatibility with fire service operations.**

Action Statements

- 4.2A.1a Work cooperatively with the appropriate City Departments in issues related to the acquisition, use and maintenance of equipment. Assign highest priority to emergency equipment.
- 4.2A.1b Research new equipment and replacement needs and recommend purchases with specifications that meet industry and professional standards, local needs, and Public Safety requirements.
- 4.2A.1c Meet or exceed the manufacturers' recommended standards for the frequency of testing of apparatus and equipment, and correct deficiencies.
- 4.2A.1d Conduct effective in-service maintenance and inspection of facilities and equipment.
- 4.2A.1e Work cooperatively with the appropriate City Departments in issues related to the acquisition, use, maintenance, and modification of facilities.

Policy 4.2A.2 **Provide training that is adequate for required duties.**

Action Statements

- 4.2A.2a Provide coordination for all training activities within the Fire Services Division.

- 4.2A.2b Identify in-service training requirements by test and inspection and by observing performance at emergencies.
- 4.2A.2c Meet or exceed recommended or mandatory training for the fire service.
- 4.2A.2d Provide specialized training to establish a high level of expertise for extremely hazardous or critical operations.
- 4.2A.2e Study the effectiveness of a firefighters physical fitness program and the impacts it may have on job performance.

Policy 4.2A.3 Respond to requests for services.

Action Statements

- 4.2A.3a Give highest priority to emergency calls so that responses are made within an average time of 5.6 minutes or less and within 6 minutes or less 90% of the time from receipt of call.
- 4.2A.3b Coordinate with the Department of Public Works to provide traffic signal controllers, street signing, and other methods which reduce response times.
- 4.2A.3c Seek improvement of dispatch and response policies, provide resources, and implement changes that may favorably affect response times. Analyze response time data.
- 4.2A.3d Annually review data in regard to calls for service, response times, and changing risk probabilities. If annual data reveals a deterioration in service levels, consider initiating needs analysis for additional or relocated facilities, additional apparatus and/or additional personnel.

- 4.2A.3e Investigate and identify factors that cause or may cause injuries or property damage when responding to calls and take corrective actions.

Policy 4.2A.4 Conduct field operations and emergency scene management in a safe, effective, and efficient manner.

Action Statements

- 4.2A.4a Be sensitive to conditions that may be potential fire or safety hazards in buildings and other properties and maintain liaison with appropriate departments and agencies to correct those conditions.
- 4.2A.4b Maintain a system of pre-fire surveys for selected buildings and provide critical information that is immediately available to responding emergency personnel should an incident occur. Consider electronic technology to provide survey information "on-line" at emergency scenes.
- 4.2A.4c Maintain liaison with the Department of Public Works to assure an adequate and well-maintained water supply system for fire suppression purposes.
- 4.2A.4d Identify and adopt methods and policies which provide safety, improve communications, and enhance command and control of emergency incidents. Adopt State Emergency Management System (SEMS).
- 4.2A.4e Maintain policies and agreements with other agencies that provide for mutual emergency assistance when required.

- 4.2A.4f Take measures that reduce the number of false or malicious alarm reports.
- 4.2A.4g Participate in regional efforts to create utilities geo-base with on-scene access to digital mapping.

GOAL 4.2B: PROVIDE EFFECTIVE RESPONSE CAPABILITY FOR NON-FIRE INCIDENTS THAT MAY DIRECTLY ENDANGER THE LIVES, PROPERTY, AND WELL BEING OF THE COMMUNITY.

Policy 4.2B.1 Provide immediate life support to those who are threatened by situations requiring emergency medical services or rescue.

Action Statements

- 4.2B.1a Meet or exceed mandated minimum standards of training for emergency medical response personnel.
- 4.2B.1b Study, and where feasible, provide alternate methods of emergency medical service delivery when it is determined to be more efficient and beneficial to those in need. Consider EMT-P level training.
- 4.2B.1c Maintain liaison with the County Emergency Medical Services Agency and other agencies involved in the Emergency Medical System.

- 4.2B.1d Monitor performance results of EMS providers to assure adequate levels of service delivery and if appropriate study the feasibility of city operated EMS.
- 4.2B.1e Participate in joint agency mass casualty and medical disaster drills and maintain capability for response to actual situations.
- 4.2B.1f Participate in County EMS Design Committee.

Policy 4.2B.2 **Operate a response system that will provide effective control and investigation of hazardous materials emergencies.**

- 4.2B.2a Provide a specially trained and equipped response team capable of mitigating emergencies resulting from hazardous materials leaks, spills and discharges and conduct related inspections and permit activities.
- 4.2B.2b Complete required reports and conduct follow-up investigations when necessary.
- 4.2B.2c Consider electronic technology to provide Hazardous Materials Management Plan (HMMP) information "on-line" at emergency scenes.
- 4.2B.2d Consider regional hazardous materials response system.
- 4.2B.2e Study potential impacts of emerging bio-technology on response capabilities and related inspection and permit activities.

GOAL 4.2C: REDUCE THE DEMAND FOR FIRE SUPPRESSION AND HAZARDOUS MATERIALS RESPONSE, REDUCE THE SEVERITY OF THE INCIDENTS AND PROVIDE PROTECTION FOR THE LIVES, WELFARE, AND ENVIRONMENT OF PEOPLE WITHIN THE COMMUNITY.

Policy 4.2C.1 Apply demand management principles to control hazards through enforcement of fire and life safety codes, ordinances, permits and field inspections.

Action Statements

- 4.2C.1a Revise and adopt appropriate codes, ordinances, and policies significant to fire and life safety issues.
- 4.2C.1b Assist local industry and residents by timely review of building plans and applications for permits in order to enhance understanding and consistency in interpreting code requirements.
- 4.2C.1c Review proposals for new or rehabilitated properties so that minimum protection standards for access, water supply, fire resistive construction, exiting, fire protection equipment, and control of hazardous processes are considered.

4.2C.1d Conduct building and permit inspections for safety at a frequency sufficient to promote compliance with appropriate codes and ordinances.

4.2C.1e Provide a fire investigation system that will determine the cause of fires and provide adequate collection of data. Pursue the arrest and prosecution of those responsible for arson.

Policy 4.2C.2 **Coordinate a comprehensive program designed to control and mitigate harmful effects resulting from the storage, use and transport of hazardous materials.**

Action Statements

4.2C.2a Conduct inspection and permit activities consistent with laws and requirements governing the use and storage of hazardous substances.

4.2C.2b Participate in cooperative efforts directed toward remedying problems associated with hazardous materials.

4.2C.2c Make appropriate notifications and maintain liaison with other agencies and departments concerned with or responsible for testing, monitoring and cleaning up hazardous contamination. Maintain records concerning status.

4.2C.2d Secure evidence and pursue prosecution and/or cost recovery for illegal or negligent activities concerning the use, storage and transport of hazardous materials.

- 4.2C.2e Participate with business in local, regional and state initiatives to streamline the regulatory process.

Policy 4.2C.3 Heighten public consciousness of fire and life safety in ways citizens can not only prevent fires from starting but react properly to emergencies when they occur lowering the demand for services.

Action Statements

- 4.2C.3a Provide a means to assist local business and industry with their in-house fire prevention programs.
- 4.2C.3b Participate with schools in a comprehensive fire safety and fire education program targeted at early elementary school students.
- 4.2C.3c Sponsor an annual fire safety awareness campaign which involves active participation by elementary school students.
- 4.2C.3d Maintain effective liaison with the news media.
- 4.2C.3e Provide appropriate talks, tours and demonstrations regarding fire safety and suppression methods.
- 4.2C.3f Disseminate fire and life safety information materials. Release special public warning notices when necessary to inform of a particular or unusual hazard.
- 4.2C.3g Coordinate fire and life safety education activities through the Community Services Bureau.

**GOAL 4.2D PROVIDE PLANNING AND
ADMINISTRATION WHILE
MAINTAINING LIAISON WITH
OTHER AGENCIES AND
ORGANIZATIONS TO PROVIDE A
QUALITY LEVEL OF FIRE
SERVICES TO THE COMMUNITY.**

**Policy 4.2D.1 Adjust to changing service
requirements, new laws, regulations,
policies, technologies and changes
occurring in the Community.**

Action Statements

- 4.2D.1a Develop and maintain data processing systems
capable of providing information for operational
and management analysis.
- 4.2D.1b Cost effectively allocate personnel and
equipment to each fire district and all fire service
activities.
- 4.2D.1c Review and apply new regulations and
legislative requirements that affect emergency
service delivery, planning and program
operations.
- 4.2D.1d Develop and apply internal planning, policies
and procedures consistent with operational
needs.
- 4.2D.1e Evaluate personnel, facilities and equipment
through periodic inspections.

- 4.2D.1f Provide a work environment that encourages personal growth, challenge and participation. Participate in City-wide Continuous Quality Improvement activities.

Policy 4.2D.2 Work cooperatively with other agencies and organizations when addressing issues that affect fire services.

Action Statements

- 4.2D.2a Study benefits of participating in future ISO Rating Schedule evaluations.
- 4.2D.2b Maintain professional memberships and participation with appropriate fire service and public administration organizations.
- 4.2D.2c Participate in Emergency and Disaster Preparedness planning at all levels of government. Participate in the City's Emergency Management Organization.
- 4.2D.2d Provide fire station facilities for civic and charitable uses consistent with City policy.

Policy 4.2D.3 Take all viable opportunities to include the principles of demand management in decision making processes.

Action Statements

- 4.2D.3a Incorporate market-based pricing to the extent possible when fees are being set or adjusted.

- 4.2D.3b In decision making with regards to proposed expansion or creation of services thoroughly analyze demand and the implications of the proposal on future demand.
- 4.2D.3c Modify or revise unit definitions and performance indicators which may be demand creating wherever applicable.

APPENDIX A
1985 FIRE SERVICES SUB-ELEMENT

Appendix A: 1985 Action Statement Summary

The following matrix describes the action taken in response to each of the action statements in the 1985 Fire Services Sub-Element

Action Statement	Staff Responsibilities	Analysis and Policy	Infrastructure and Funding	Other
Goal 4.2A: Provide a Fire Services Response System that will control the spread of fire in buildings and other properties and maintain minimal casualties and property loss from fire and other related emergencies.				
4.2A.1: Assure that equipment and facilities are provided and maintained to meet reasonable standards of safety, dependability, and compatibility with fire service operations.				
4.2A.1a: Work cooperatively with appropriate City Departments in issues related to the acquisition, use and maintenance of equipment and facilities. Assign top priority to emergency equipment.	Preparation of specifications		Expansion of Station 2 drill grounds Remodel Station 2 Seismic retrofit all Fire Stations	
4.2A.1b: Research new equipment and replacement needs and recommend purchases with specifications that meet industry standards, local needs, and Public Safety requirements.	Preparation of specifications for fire apparatus	Redesign of hose load configuration- standardize for all engines and squads	Replacement of 2 engines, 1 truck, and 1 squad. Conversion to 5" hose.	Standardized all nozzles, hose, and SCBA
4.2A.1c: Meet or exceed the manufacturers' recommended standards for frequency of testing of apparatus and equipment, and correct deficiencies.	Testing schedules maintained by Staff Maintenance Officer in cooperation with Fleet Manager		Revision of replacement schedule transferring tools/equipment from Fleet Manager to Fire Services Division	
4.2A.1d: Conduct effective in-service maintenance and inspection of facilities and equipment.	Coordinate maintenance of Fire Stations with Building Services			
4.2A.2: Provide training that is adequate for required duties.				
4.2A.2a: Coordinate training activities with the Training Bureau of Support Services Division.				Training Coordinator position transferred to Fire Services Division
4.2A.2b: Identify in-service training requirements by test and inspection and by observing performance at emergencies.	Daily and monthly training monitored by Training Coordinator	Fire FTO Program developed Post Incident critiques		
4.2A.2c: Meet or exceed recommended or mandatory training standards for the fire service.	Training Coordinator responsible for maintaining Training Schedule			

Action Statement	Staff Responsibilities	Analysis and Policy	Infrastructure and Funding	Other
4.2A.2d: Provide specialized training to establish a high level of expertise for extremely hazardous or critical operations.		Development of position training plans		Participate in Regional Fire Academy Planned Training through recognized courses
4.2A.3: Respond to requests for services				
4.2A.3a: Give highest priority to emergency calls so that responses are made within an average time of 4.2 minutes or less and within 5 minutes or less 85% of the time.	Response time monitored by staff		Improvements made in CAD to decrease response time	
4.2A.3b: Coordinate with the Department of Public Works to provide traffic signal controllers, street signing, and other methods which reduce response time.	Provided Traffic Engineering priority listing of city intersections for signal control devices		Conversion from Opticom to Emlrac control devices	
4.2A.3c: Seek improvement of dispatch and response policies, provide resources, and implement changes that may favorably affect response times. Record response time data.	Periodic review of response time data	Fire Services Procedural Manual sets response policy and alarm complement	CAD system provides response time reports Planned Pre-alert enhancement	
4.2A.3d: Annually review data in regard to calls for service, response times, and changing risk probabilities. If annual data reveals a deterioration in service levels, consider initiating needs analysis for additional or relocated facilities, additional apparatus and/or additional personnel.	Annual Review Division MAPR			
4.2A.3e: Investigate and identify factors that cause or may cause injuries or property damage when responding to calls and take corrective actions.	Accident review	Accident review procedures		Class B Driver Training Program
4.2A.4: Conduct field operations and emergency scene management in a safe, effective, and efficient manner.				
4.2A.4a: Be sensitive to conditions that may be potential fire or safety hazards in buildings and other properties and maintain liaison with appropriate departments and agencies to correct those conditions.	Commercial and Assembly occupancy inspections programs in place			

Action Statement	Staff Responsibilities	Analysis and Policy	Infrastructure and Funding	Other
4.2A.4b: Maintain a system of pre-fire surveys for selected buildings and provide critical information that is immediately available to responding emergency personnel should an incident occur.			Computer "draw" program and electronic storage of pre fire surveys	Development of selected Haz Mat Pre fires from HMMP data
4.2A.4c: Maintain liaison with Department of Public Works to assure an adequate and well-maintained water supply system for fire suppression purposes.			Connections made between providers to insure adequate water pressure	
4.2A.4d: Identify and adopt methods and policies which provide safety, improve communications, and enhance command and control of emergency incidents.	Utilize ICS System	Adoption of SEMS	Added VHF radio capability	
4.2A.4e: Maintain policies and agreements with other agencies that provide for mutual emergency assistance when required.	Continue to pursue "drop border" agreements	Mutual Aid Agreements		Participate in County-wide drills for HazMat, Wildland, and Fire Suppression
4.2A.4f: Take measures that reduce the number of false or malicious alarm reports.		False Alarm Program		
4.2B: Provide effective response capability for non-fire incidents that may directly endanger the lives, property, and wellbeing of the community.				
4.2B1: Provide immediate life support to those who are threatened by situations requiring emergency medical services or rescue.				
4.2B.1a: Meet or exceed mandated minimum standards of training for emergency medical response personnel.	Added Defibrillator Training		Added Defibrillator capability	
4.2B.1b: Study, and where feasible, provide alternate methods of emergency medical service delivery when it is determined to be more efficient and beneficial to those in need. Consider EMT-1 level training.		Upgraded to First Responder-D		
4.2B.1c: Maintain liaison with the County Emergency Medical Care Commission and other agencies involved in the Emergency Medical System.	Participating in County EMS System Design Task Force			

Action Statement	Staff Responsibilities	Analysis and Policy	Infrastructure and Funding	Other
4.2B.1d: Monitor performance results of EMS providers to assure adequate levels of service delivery and if appropriate study feasibility of city operated EMS.				Performance results not routinely available from County EMSA
4.2B.1e: Participate in joint agency mass casualty and medical disaster drills maintain capability for response to actual situations.				Participate in all County Medex Drills
4.2B.2: Operate a response system that will provide effective control and investigation of hazardous materials emergencies.				
4.2B.2a: Provide a specially trained and equipped response team capable of mitigating emergencies resulting from hazardous materials leaks, spills and discharges and conduct related inspections and permit activities.		Integration of HMI into Emergency Response Team	Training/equipment for HMIs as members of Response Team	
4.2B.2b: Complete required reports and conduct follow-up investigations when necessary.		Investigation of all Haz Mat incidents		
4.2C: Control the number and severity of fires and hazardous materials incidents and provide protection for the lives, welfare, and environment of people within the community.				
4.2C.1: Provide controls based on fire and life safety codes, ordinances, permits and field inspections. Promote compliance through enforcement efforts.		Adoption of UFC with local modifications Adoption TGO Adoption Highrise Ordinance Adoption Residential Sprinkler Ordinance		
4.2C.1a: Revise and adopt appropriate codes, ordinances and policies significant to fire and life safety issues.				
4.2C.1b: Assist local industry and residents by timely review of building plans and applications for permits in order to enhance understanding and consistency in interpreting code requirements.	Participate in One Stop Center	Participate in Streamlining initiatives		S.B.1082 Planning
4.2C.1c: Review proposals for new or rehabilitated properties so that minimum protection standards for access, water supply, fire resistive construction, exiting, fire protection equipment, and control of hazardous processes are considered.	PRC One Stop Center			

Action Statement	Staff Responsibilities	Analysis and Policy	Infrastructure and Funding	Other
4.2C.1d: Conduct building and permit inspections for safety at a frequency sufficient to promote compliance with appropriate codes and ordinances.				Study complete - Awaiting completion of FMIS to implement new inspection schedule
4.2C.1e: Provide a fire investigation system that will determine the cause of fires and provide adequate collection of data. Pursue the arrest and prosecution of those responsible for arson.		Fire investigation conducted for all structure fires		
4.2C.2: Coordinate a comprehensive program designed to control and mitigate harmful effects resulting from the storage, use and transport of hazardous materials.				
4.2C.2a: Conduct inspection and permit activities consistent with laws and requirements governing the use and storage of hazardous materials.	Inspection program in place			
4.2C.2b: Participate in cooperative efforts directed toward remedying problems associated with hazardous materials.		Water Bill Tanner Bill Sara Title III Prop. 65		Participate in regional groups: emergency response and enforcement
4.2C.2c: Make appropriate notifications and maintain liaison with other agencies and departments concerned with or responsible for testing, monitoring, and cleaning up hazardous contamination. Maintain records concerning status.	Oversight of City contaminated sites	Review of all RWQCB and SCVWD actions for sites located in City		
4.2C.2d: Secure evidence and pursue prosecution and/or cost recovery for illegal or negligent activities concerning the use, storage, and transport of hazardous materials.		Investigation criteria and procedures		
4.2C.3: Heighten public consciousness of fire and life safety in ways citizens can not only prevent fires from starting but react properly to emergencies when they occur.				
4.2C.3a: Provide a means to assist local business and industry with their in-house fire prevention programs where possible.				Self Certification Program Joint Public/Private sector functional drills
4.2C.3b: Conduct an annual visitation by fire company personnel to all elementary school grades K through 3, in conjunction with a fire safety program with the schools involved.	Coordinate with Community Services Bureau			Friends in Blue Program

Action Statement	Staff Responsibilities	Analysis and Policy	Infrastructure and Funding	Other
4.2C.3c: Conduct an annual fire safety poster contest or similar activity for Grades K through 6.	Coordinate with Community Services Bureau			
4.2C.3d: Maintain effective liaison with the news media.		Creation of Division PIO Position		
4.2C.3e: Provide appropriate talks, tours, and demonstrations regarding fire safety and suppression methods.	Coordinate with Community Services Bureau			
4.2C.3f: Disseminate fire and life safety information materials. Release special public warning notices when necessary to inform of a particular or unusual hazard.	Coordinate with Community Services Bureau	Development of "Fire Prevention Information Sheets" Daycare Brochure		
4.2C.3g: Coordinate appropriate activities through the Community Services Bureau.				
4.2D: Provide planning and administration while maintaining liaison with other agencies and organizations to provide a quality level of fire services to the community.				
4.2D.1: Adjust to changing service requirements, new laws, regulations, policies, technologies, and changes occurring in the Community.				
4.2D.1a: Develop and maintain data processing systems capable of providing information for operational and management analysis.			FMIS	
4.2D.1b: Cost effectively allocate personnel and equipment to each fire district and all fire service activities.		Management Reorganization	FMIS	
4.2D.1c: Review and apply new regulations and legislative requirements that affect emergency service delivery, planning, and program operations.	Legislative analysis and review			
4.2D.1d: Develop and apply internal planning, policies, and procedures consistent with operational needs.		Periodic review and update of Fire Services Procedural Manual		
4.2D.1e: Evaluate personnel, facilities and equipment through periodic inspections.	Daily, monthly, and annual inspections by staff			Annual Safety Committee Inspection
4.2D.1f: Provide a work environment that encourages personal growth, challenge and participation.	Supervisor training program	Performance standards developed		Participation in Continuous Improvement Initiative
4.2D.2: Work cooperatively with other agencies and organizations when addressing issues that affect fire services.				
4.2D.2a: Facilitate future ISO Rating Schedule evaluations and study recommendations made as a result.				ISO Inspection completed in 1985 Due for re-inspection in 1995

Action Statement	Staff Responsibilities	Analysis and Policy	Infrastructure and Funding	Other
4.2D.2b: Maintain professional memberships and participation with appropriate fire service organizations.				Active involvement in professional associations
4.2D.2c: Participate in Emergency and Disaster Preparedness planning at all levels of government.				Participate in EMO planning and exercise
4.2D.2d: Provide fire station facilities for civic and charitable uses consistent with City policy.				Scheduled through Community Services Bureau

APPENDIX B
CONSOLIDATED REPORT

ALARM REPORT - PART I

Fiscal Year	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	10 Yr Avg
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BUILDING FIRES:

- 11-18 Public Assembly
- 21-22 Educational
- 31-36 Institutional
- 40-41 Dwelling 1 & 2
- 42 Apartments
- 43 Rooming/Board Homes
- 44 Motel/Hotel/Inn
- 45 Other Residential
- 47 Mobile Homes/Trls
- 51,52,59 Stores/Offices
- 61-67 Utilities/Labs
- 70 Industrial
- 80 Storage

8	4	4	8	24	15	16	8	7	11	10.5
1	1	1	1	5	5	3	2	1	2	2.1
1	1	1	1	1	3	2				1.2
94	66	66	65	69	77	93	39	66	46	68.1
54	39	50	63	78	96	81	50	40	60	61.1
						1	2	2		0.3
3	2	2	2	2	2	1	1	2	5	2.2
										0.3
8	7	7	10	7	8	9	6	11	6	7.9
9	4	8	14	15	18	19	7	8	8	11
3	3	3	5	10	14	9		1		4.8
16	12	13	19	22	15	16	7	3	5	12.8
5	8	4	9	10	9	10		1		56

TOTAL

TOTAL	202	147	160	197	245	262	260	121	142	143	187.9
Fiscal Year	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	10 Yr Avg

	132	405	422
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OTHER FIRES:

- 14 Transport Vehicle
- 16,91,93 Outdoor Prop
- 92 Const Unocc/Spec Prop
- 60s,94,97 Spec Vehicle
- 95 Railroad Property
- 96 Road Property

132	105	131	134	95	112	87	102	97	105	110
219	203	170	211	85	30	28	135	155	173	140.9
6		3	4	4	3	16		1	1	3.8
23	18	14	17	8	12	5				9.7
1		1		4	3	1				1
				32	37	37			10	11.6
381	326	319	368	228	197	174	237	253	289	277
583	473	479	563	473	459	434	358	395	432	464.9

TOTAL

TOTAL FIRES

ALARM REPORT - PART II

Fiscal Year	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	10 Yr Avg
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RESCUE SERVICES:

31 Amb Ass/Res/Inh/CPR
32 First Aid
35 Extricate
57 Standby
39 No Service Rendered

560	643	728	822	995	1034	2022	3299	3428	3653	1718.4	
723	549	679	756	787	860	659	271	183	124	559.1	
27	30	31	44	32	31	20	10	15	28	26.8	
890	1014	1038	1054	951	1014	504	5	1	1	647.2	
638	659	630	687	711	789	352	4	3	2	447.5	
2838	2895	3106	3363	3476	3728	3557	3589	3630	3808	3399	
TOTAL	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	10 Yr Avg

NON-FIRE SERVICES:

41 & 42 HazMat Incidents
40,43-49 Hazardous Cond.
50-6,58-9 Pub Svc Calls
64 Alarm, No Fire
70-79 False/Mal Alarm
91-99 Other

69	115	101	100	110	96	65	56	32	35	77.9
234	261	208	233	288	397	231	227	216	156	245.1
91	151	224	179	194	147	365	369	419	378	251.7
407	446	492	463	409	382	344	361	455	471	423
10	15	11	16	8	8	152	370	405	350	134.5
23	30	66	48	22	37	23	12	8	3	134.5
834	1018	1102	1039	1031	1067	1180	1395	1535	1393	1159.4
TOTAL										

MUTUAL AID RESPONSES

TOTAL RESPONSES

24	23	18	17	9	4	2	22	8	13	14
4279	4409	4705	4982	4989	5258	5173	5364	5568	5646	5026.8

42101 Fire Responses

42103 Rescue Responses

42105 Non-Fire Responses

42170 HazMat Responses

583	473	479	563	473	459	434	358	395	432	464.9
2838	2895	3106	3363	3476	3728	3557	3589	3630	3808	3399
834	1018	1102	1039	1031	1067	1180	1395	1535	1393	1159.4
69	115	101	100	110	96	65	56	32	35	77.9

Civil Deaths
DPS Deaths

School Year	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	10 Yr Avg
719035	681020	915645	488689	280750	791144	1249235	1269645	1959671	954526	930936	
212105	300638	349931	414585	116229	291640	521030	508261	531145	140389	338595.3	
931140	981658	1265576	903274	396979	1082784	1770265	1777906	2490816	1094915	1269531.3	
17	1	10	20	10	13	15	31	17	14	14.8	
2	1	2	7	0	1	6	9	10	10	4.8	
19	2	12	27	10	14	21	40	27	24	19.6	
2											
TOTAL	2	0	0	0	1	0	0	0	3	0.6	
										0	
									3	0.6	

ENGINEER COMPANY ACTIVITY

Fiscal Year	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	10 Yr Avg
BUILDINGS INSPECTED:											
11-18 Public Assembly	181	174	218	224	132	220	292	279	158	145	202.3
21-22 Educational	4	6	16	4	5	16	9	5	4		6.9
31-36 Institutional		1	1	2	1	4	16	12		1	3.8
40-41 Dwelling 1 & 2	2	31	27	16	139	16	3	24	4	145	40.7
42 Apartments	2698	3016	2863	3016	2919	2961	3108	3100	3206	3164	3005.1
43 Rooming/Board Homes	1		30	113	38	7	60	2	24	24	29.9
44 Motel/Hotel/Inn	25	77	85	74	116	84	145	136	79	119	94
45 Other Residential	37	17	16	14	128	138	16	25	32	80	50.3
47 Mobile Homes/Trls	8	9	9	7	10	9	13	27	11	30	13.3
51,52,59 Stores/Offices	3276	3596	3788	3663	4152	3580	3193	3136	3149	3208	3474.1
61-67 Utilities/Labs	239	170	300	155	297	235	156	109	73	124	168.91
70 Industrial	1312	1258	892	1045	960	1157	1496	1306	1136	1049	1161.1
80 Storage	116	136	118	153	180	212	169	194	134	107	151.9
90 Vacant								395	560	615	157
Inspections Assigned	1280	1280	1280	1280	1280	1280	1280	1280	1280	1280	1280
SUB TOTAL	7899	8491	8363	8486	9077	8639	8676	8750	8570	8811	8576.2

RE-INSPECTIONS:

Generated this RP											
Due this RP											
Completed this RP											
Completed Carryovers											

TOTAL

MISCELLANEOUS:

Violations Detected	7548	5783	4552	4707	4341	3301	2977	2562	2185	2168	4012.4
Violations Corrected	7477	6102	4408	4533	4028	2942	2555	2447	1972	1960	3842.4
Lectures & Demos	234	76	102	84	42	95	66	102	56	60	91.7
Total Audience	5447	1116	1383	1577	1333	1442	1026	1501	1378	2285	1848.8
Pre-Fire Surveys	217	225	186	166	211	188	196	219	228	204	204
Bicycle Licenses	467	391	501	375	264	376	260	257	273	322	348.6

42160 Eng Co Insp
42161 Eng Co Re-Insp
42122 Pre-Fire Surveys

7899	8491	8363	8486	9077	8639	8676	8750	8811	8570	1122	977.8
217	225	186	166	211	188	196	219	204	228	204	204

FIRE PREVENTION BUREAU ACTIVITY - PART I

Fiscal Year	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	10 Yr Avg
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BUILDINGS INSPECTED:

11-16 Public Assembly	14	87	235	267	200	199	361	349	369	454	253.5
21-22 Educational	30	66	46	46	67	58	202	191	214	232	115.2
31-36 Institutional	8	36	39	53	57	68	43	32	24	48	40.8
40-41 Dwelling 1 & 2	7	28	61	99	52	71	48	4	26	26	12
42 Apartments				3	17	9	10	4	12	10	38
43 Rooming/Board Homes	2	13	14	29	25	18	8	46	31	13	6.3
44 Hotel/Motel/Inn	5	13	10	28	49	34	94	121	93	151	19.9
45 Other Residential				33	8	9	16	12	14	17	59.8
47 Mobile Homes/Tris	157	180	435	309	318	369	586	566	612	767	429.9
51,52,59 Stores/Offices	24	12	79	79	85	50	39	71	42	45	52.6
61-67 Utilities/Labs	227	208	266	189	122	197	254	483	190	235	237.1
70 Industrial	65	41	78	28	18	33	20	32	43	32	39
80 Storage	1280	1280	1280	1280	1280	1280	1280	1280	1280	1280	1280
Inspections Assigned	539	690	1277	1164	1049	1124	1684	1928	1670	2038	1316.3
SUB-TOTAL											

SPECIAL PROPERTIES:

14 Transport Vehicle											
16,91,93 Outdoor Prop		53	3	7	4	6	11	1			0.1
92 Const Unocc/Spec Prop	1272	755	755	4	12	1	9	14	6	20	12.4
60s,94,97 Spec Vehicle								9	1	4	282.2
95 Railroad Property											0
96 Road Property											0
SUB-TOTAL	1272	808	758	11	16	8	20	24	8	24	0.2
TOTAL	1811	1498	2035	1164	1065	1132	1704	1952	1678	2062	1610.1

RE-INSPECTIONS:

Inspected this RP	449	438	560	612	448	538	866	960	861	1078	681
Generated this RP										897	89.7
Violations Detected	3587	3164	4033	3512	3077	3040	3775	4210	3669	3841	3590.8
Violations Corrected	2815	1649	2652	3067	1958	2570	3226	3610	3400	3721	2866.8

FIRE PREVENTION BUREAU ACTIVITY - PART II

Fiscal Year	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	10 Yr Avg
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PERMITS ISSUED:

HM Storage		60	97	179	46	67	94	90	49	68	75
Operational		758	793	1017	257	585	692	649	560	701	601.2
Fumigation						453	404	459	434	392	214.2
HM Storage (Renewal)						36	86	74	122	110	42.8

MISCELLANEOUS:

Fires Investigated	44	33	33	63	10	33	50	32	51	52	40.1
Fire Cause Determined						32	49	31	50	51	21.3
Plans Checked	1184	894	44	249	90	571	636	376	255	244	454.3
HM Renewal Inspections						640	1179	1250	1045	1050	516.4
Public Inquiries (FP)						3610	3465	3069	3276	4780	1820
Public Inquiries (HM)						2245	2992	3659	3083	3083	1506.2

42130 FP Insp

42132 FP Re-Insp

42134 Inquiries FP

42144 Investigate Fires

42152 Tactical Plan Ck

42174 HM Permits

42175 Inquiries HM

42178 Ops Permits

42188 HM Renewal Insp

1811	1498	2035	1164	1065	1132	1704	1952	1678	2062	1610.1
449	438	560	612	448	538	866	960	861	1078	681
0	0	0	0	0	3610	3465	3069	3276	4780	1820
44	33	33	33	63	10	33	50	32	52	38.3
1184	894	44	249	90	571	636	376	255	244	454.3
0	60	97	179	46	67	94	90	49	68	75
0	0	0	0	0	2245	2992	3659	3083	3083	1506.2
0	758	793	1017	257	585	692	649	560	701	601.2
0	0	0	0	0	640	1179	1250	1045	1050	516.4